CLAIMS

1. A method (200) for verifying a video format supported by a display device (25), the display device (25) adapted to receive a digital television signal from a digital video source (10) via a digital video interface (15), the method comprising:

receiving (202) a data structure (75) provided by the display device (25), the data structure (75) specifying a plurality of timing parameters associated with a supported video format;

providing (204) a plurality of predetermined value ranges, each of the plurality of predetermined value ranges corresponding to one of the plurality of timing parameters;

separating (206) the received data structure (75) into a plurality of portions, each of the plurality of portions corresponding to one of the plurality of timing parameters;

comparing (208) at least some of the plurality of portions with at least some of the plurality of predetermined value ranges; and

based on the comparisons, determining whether the supported video format is verified.

2. A computer-readable medium (64, 70, 50, 71) encoded with a computer program which, when loaded into a processor (39, 77, 50, 71), implements the method of claim 1.

3. The method according to claim 1, further comprising:

based on whether the supported video format is verified, including the supported video format in a schedule of supported video formats associated with the display device (25).

4. The method according to claim 3, further comprising:

when the supported video format is not verified, not including the supported video format on the schedule.

5. The method according to claim 3, further comprising:

when the supported video format is verified, including the supported video format on the schedule.

6. The method according to claim 5, further comprising:

based on the comparisons, determining a picture aspect ratio of a verified, supported video format.

7. The method according to claim 5, further comprising:

presenting the schedule to a user of the display device for selection of a preferred video format.

8. The method according to claim 7, wherein the schedule is presented to the user as a menu adapted to enable the user to select the preferred video format from the menu.

9. The method according to claim 7, further comprising:

based on a selection of the preferred video format by the user, transmitting the digital television signal to the display device in the selected format, via the digital video interface (15).

10. The method according to claim 1, further comprising:

storing the data structure in a memory (64).

11. The method according to claim 1, wherein the digital video interface (15) comprises a digital channel.

12. The method according to claim 1, wherein the digital channel comprises an I^2C bus.

13. The method according to claim 1, wherein the data structure (75) comprises Video Electronics Standards Association Extended Display Identification Data.

14. The method according to claim 1, wherein the display device (25) comprises one of a high definition television monitor; an extended definition television monitor; and a standard definition television monitor.

15. The method according to claim 1, wherein the video format comprises one of: 1920x1080i; 1280x720p; 720x480p; and 720x480i.

16. The method according to claim 1, wherein the receipt of the data structure (75) occurs upon hot plug connection of the display device to the digital video source (10).

17. The method according to claim 1, wherein the plurality of portions include a predetermined number of bits.

18. The method according to claim 1, wherein the plurality of timing parameters comprise: horizontal active pixels, horizontal blanking pixels, vertical active lines, vertical blanking lines, horizontal sync offset, horizontal sync pulse width, and vertical sync offset.

19. The method according to claim 18, wherein the predetermined value ranges correspond to actual timing parameters obtained by observation of a digital video source transmitting a digital television signal in the supported video format over a digital video interface.

20. An apparatus for verifying a video format supported by a display device (25), comprising:

a computer-readable storage medium (64); and

a processor (39) responsive to the computer-readable storage medium (64) and to a software program (22), the software program (22), when loaded into the processor (39), operative to perform a method comprising:

receiving a data structure (75) specifying a plurality of timing parameters associated with a supported video format of the display device (25);

accessing a plurality of predetermined value ranges, each of the plurality of predetermined value ranges corresponding to one of the plurality of timing parameters;

separating the received data structure (75) into a plurality of portions, each of the plurality of portions corresponding to one of the plurality of timing parameters;

comparing at least some of the plurality of portions with at least some of the plurality of predetermined value ranges; and

based on the comparisons, determining whether the supported video format is verified.

21. The apparatus according to claim 20, wherein the processor is associated with the display device.

22. The apparatus according to claim 20, wherein the processor is associated with a set-top box (10) adapted to transmit a video signal to the display device (25).

23. The apparatus according to claim 20, wherein the processor is associated with a digital video interface (50/71) responsive to the display device (25).